



**VERIFICATION STATEMENT OF  
PRODUCT LIFE CYCLE GREENHOUSE GAS ASSERTIONS**

Statement No. 00004-2014-CFP-TWN

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**Shiny Chemical Industrial Co., Ltd.**

*initiate reporting of*

**Product Life Cycle Greenhouse Gas Inventory Report of  
Edge Bead Remover (SEP73/OK73)  
(2013)**

**Scope of Verification**

*DNV Business Assurance (DNV) has been commissioned by Shiny Chemical Industrial Co., Ltd. (hereafter "the Company") to perform a verification of the product life cycle greenhouse gas assertion of the Company's Product Life cycle Greenhouse Gas Inventory Management Report (hereafter "the Inventory Report") with respect to the following product: EDGE BEAD REMOVER (SEP73/OK73), and the data from Shiny Chemical Industrial Co., Ltd. : No. 5 & 18, Yeong Gong 1st Rd. Yeong An Dist., Kaohsiung City, Taiwan, ROC., and the time period is from Jan. 1, 2013 through Dec. 31, 2013.*

**Boundary of Verification**

Business to Business  Business to Consumer

**Verification Criteria and GHG Programme**

*The verification was performed on the basis of PAS 2050: 2011 and ISO/TS 14067: 2013 given to provide for consistent product life cycle GHG emission identification, calculation, monitoring and reporting.*

**Verification Statement**

*It is DNV's opinion that the reliability of the information within the Report for site-specific data was verified with a reasonable assurance. The Product Life-cycle Greenhouse Gas Inventory Report of EDGE BEAD REMOVER (SEP73/OK73) (2013), which was published on Oct. 2013, is free from material discrepancies in accordance with PAS 2050: 2011 and ISO/TS 14067: 2013.*

Chun-Nan Lin  
GHG Verifier  
December 12, 2014

David Hsieh  
District Manager  
DNV Business Assurance Taiwan



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Supplement to Statement No. 00004-2014-CFP-TWN

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### Process and Methodology

*The reviews of the Inventory Report and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria. The Inventory Report correctly complies with the requirement of PAS 2050: 2011 and ISO/TS 14067: 2013.*

### Quantification of Product Life Cycle Greenhouse Gas Emission

*The Inventory Report covering the period Jan. 1, 2013 to Dec. 31, 2013, and the data from Shiny Chemical Industrial Co., Ltd. : No. 5 & 18, Yeong Gong 1st Rd. Yeong An Dist., Kaohsiung City, Taiwan, ROC. It is DNV's opinion that the Inventory Report results in quantification of product life cycle GHG emissions that are real, transparent and measurable.*

### Product Components:

*The EDGE BEAD REMOVER (SEP73/OK73) and it's container.*

### Functional Unit

*1 Kg EDGE BEAD REMOVER (SEP73/OK73) with packaging materials*

### Product Life Cycle GHG Emissions Verified

*Emissions per Functional Unit: Kg CO<sub>2</sub>e / Kg EDGE BEAD REMOVER*

	<i>Raw materials Stage</i>	<i>Packaging materials Stage</i>	<i>Manufacturing Stage</i>	<i>B to B Carbon Footprint</i>
<i>ISO-TANK</i>	3.72	0.00	0.55	4.28
<i>1 Gal</i>	3.69	0.34	0.56	4.59
<i>20 L</i>	3.69	0.36	0.55	4.60
<i>200 L</i>	3.80	0.0019	0.57	4.37

### Verification Opinion

*Verified without Qualification*

*Unable to Verify*

### Validity of the Statement

*This verification statement shall be valid for a maximum period of two years, unless there is a change in the life cycle of the product whose GHG emissions are being assessed, in which situation, the validity ceases.*